remedy, which has been christened "Plasmochin," kills them all. It is thus regarded as a complete cure, in contrast to the merely partial effectiveness of the extract of natural cinchona bark. Physicians say that there is now hope of killing off malaria germs until they are extinct. With plasmochin the conquest of malaria should be easier than that of yellow fever, in spite of the wider incidence of the former malady. The new remedy is said to be easier to take than quinine because it has no bitter taste. Heavy doses are sometimes followed by cyanosis or blueness of the skin, but this is of brief duration. Upsetting of the stomach rarely occurs, and the patient's blood cells are not attacked. The discovery of plasmochin was not a matter of chance, but the result of a deliberately planned campaign of chemical and biological research. Not one preparation, but several, in a series of increasing potency, were sought.

## THE FRENCH GUINEA STATION OF THE PASTEUR INSTITUTE

Professor Albert Calmette, whose tuberculosis experiments have attracted international attention has been instrumental in establishing at Kindia in French Guinea a branch of the Pasteur Institute that is devoted exclusively to experimental work with monkeys. Since captive apes of the higher types nearest man, so necessary in medical experiments with the major diseases, succumb with fatal ease to the plagues of civilization, this laboratory has been fitted up for work with them under the best conditions of their natural environment.

Whole families of monkeys are bred and reared under hygienic conditions, in all other respects as much like their native haunts as possible. Medical experts administer vaccines and serums to protect them against pneumonia and the common diseases that are current among animals in central Africa. Natives collect their customary foods for them from the jungle and scientists watch their intellectual development. In short no effort is spared to keep the ape colony well and happy.

The results have thus far been most gratifying and few animals have been lost from intercurrent infections. The experimental work with monkeys on tuberculosis, which could not be carried out successfully in Paris, because the high prevalence of the disease in the metropolis constantly gave rise to accidental infection, has here gone on with great success. Dr. J. Wilbert, on the staff of the Pasteur Institute at Kindia, has found that not only are chimpanzees quite uninjured by Professor Calmette's anti-tuberculosis vaccine but they fail to contract the disease when placed in isolation with other "patients" in its advanced stages.

The immunity conferred by the vaccine lasts over a year, according to Dr. Wilbert, and can be renewed by fresh doses. The problem that naturally presents itself next is the perfection of a vaccine that will produce more permanent effects.

The Kindia monkeys will be used in experiments, says Professor Calmette, to determine the cause and treatment of all the diseases against which man is not yet effectively armed. Kindia furnishes unrivaled facilities both for the psychologist to observe the family life of chimpanzees and for the physiologist to study the mechanism of their interior, he declares.—Science Supplement.

## THE ALCOHOL CONTENT OF BREAD

Professor Nicholas Knight and Miss Violet Simpson, chemists at Cornell College, Iowa, reported to the American Chemical Society that they had collected twelve samples of ordinary bread from bakeries and housewives' ovens, and after chemical analyses found that the alcohol content in this prosaic food varied from .04 to 1.9 per cent., the latter quantity being well above the one-half of one per cent limit set by the well-known prohibition statute. The alcohol content of a loaf of bread varies with the kind of yeast used, the time it sets, and the temperature of baking.—Science Supplement, Sept. 17, 1926.

A proton, the heart of an atom, would look like a porcelain doorknob if we could see it or its sphere of influence, according to Sir Ernest Rutherford, who showed a model of this tiniest of all objects conceived or known. This bit of positive electricity, as minutely small as astronomical distances are large, if measured in centimeters would have its longest diameter expressed as the figure eight preceded by twelve ciphers and a decimal point. Weird things happen in these infinitesimal reaches of the universe, for the law of inverse squares, fundamental to our solar system and all astronomy, breaks down. Yet even the proton is probably not simple but a complex structure, not yet reconciled to the new mechanics of Einstein, Bohr, etc. Sir Ernest Rutherford still retains his title as the world's

champion alchemist, as the result of a report of W. W. Garrett, an Oxford physicist, who repeated the Miethe experiments of transmuting mercury into gold, with conclusively negative results. Sir Ernest, using alpha particles, the world's speediest projectiles, knocked out of sodium other light metals; these results are unquestioned. Thus the ancient dream of making gold out of baser metals still remains unrealized.

## Annual Meetings

## THE NINETEENTH ANNUAL MEETING OF THE SASKATCHEWAN MEDI-CAL ASSOCIATION

The Saskatchewan Medical Association held its nineteenth annual meeting in the University of Saskatchewan, September 20th and 21st. The attendance was approximately one hundred. The total membership of the Association, is approximately 375.

Papers and addresses given at the meeting were of a very high order, and where highly appreciated by those present.

Sir Henry Gauvain of London, England, gave two addresses: one on "The use of heliotherapy" and the other on "Some aspects of surgical tuberculosis." These were illustrated by lantern slides. In addition the following papers were given:

"Treatment of fractures involving the ankle joint," by Dr. Fraser Gurd, Montreal.

"Functional vs. organic disease," and "Nephritis from the standpoint of the general practitioner," by Dr. George C. Hale, London, Ont.

"Common nutritional disturbances of infancy, as observed in practice," by Dr. R. R. McGregor, Kingston, Ont.

"Diagnosis of gastric ulcer," by Dr. F. A. Corbett, Regina.

"Diabetes," by Dr. Lillian A. Chase, Regina. "The relationship of electrical energy to the medical profession," by Dr. E. E. Shepley, Saskatoon.

"Some points in pædiatrics," by Dr. J. S. Brown, Saskatoon.

"Cardiac arrhythmias," by Dr. W. R. Coles, Regina.

"The campaign in North America against

diphtheria, small pox and typhoid fever—the Seymour plan," by Dr. M. M. Seymour, Deputy Minister of Public Health, Regina.

Dr. Geo. S. Cameron, Saskatoon, gave a paper on researches on a new principle which he hopes may prove a heart stimulant. Dr. Cameron is a graduate of 1916 in arts of the University of Saskatchewan; he graduated in medicine from McGill University in 1925. After graduation he returned to McGill for post-graduate study being engaged in research work. For the past two or three months he has continued his research work at the University of Saskatchewan. It is hoped that the new discovery may prove of great benefit in the treatment of heart cases. A full report will appear in the Journal shortly.

At noon on the first day, the members attending the meeting had luncheon together at the Hudson's Bay restaurant. At 7 p.m. the same day a complimentary banquet was given by the medical men of Saskatoon, in the King George Hotel banquet room.

There was also a reception for the ladies at the home of Mrs. A. F. Malloy on the afternoon of the first day and a dinner followed by bridge in the evening. On the second day the ladies had luncheon at the City Golf Club, followed by golf and bridge.

The officers elected at the annual meeting were as follows:

Hon. President.—Dr. W. A. Harvie, Regina. President.—Dr. R. R. Stirrett, Swift Current. 1st Vice-Pres.—Dr. V. E. Black, Moose Jaw. 2nd Vice-Pres.—Dr. J. J. Hamelin, North Battleford. Gen. Sec. Treas.—Dr. A. MacG. Young, Saskatoon.

The invitation of the Moose Jaw District Medical Society to hold the annual meeting at Moose Jaw next year was accepted.